

**Return on Investment Program Funding Application (FY 2003 Request)**

This is an electronic template. Please enter your responses on this document. Only electronic submittals of this template will be accepted. Proposals submitted after the designated due date may not receive funding consideration.

FINAL AUDIT REQUIRED: The Enterprise Quality Assurance Office of the Information Technology Department is required to perform a final project outcome audit, after implementation, for all Pooled Technology funded projects.

SECTION I: PROPOSAL

Date: 16 May 2001

Agency Name: Department of Human Services

Project Name: Unified Front End

Expenditure Name: Unified Front End

Agency Manager: Randy Clemenson

Agency Manager Phone Number / E-mail: 281-5780 rclemen@dhs.state.ia.us

Executive Sponsor (Agency Director or Designee): Steve Mosena

Request For ROI Application Waiver:

Agencies are required to complete this funding application when requesting funds for any project, any IT expenditure costing over \$100,000, or any non-routine IT expenditure. If you feel there is compelling reason to waive this requirement, please provide (in the box provided below) a brief description of the project or expenditure, the budget amount, and a rationale for the waiver request. Until a decision is made regarding your waiver request, it is not necessary to complete any other portion of this application. The ITD Enterprise Quality Assurance Office will convey waiver request decisions within five working days of receipt.

Explanation:**A. Project or Expenditure Rationale**

Is this project or expenditure necessary for compliance with a Federal standard, initiative, or statute? ☐ YES (If "YES," explain) ☒ NO

Explanation:

Is this project or expenditure required by State statute? ☒ YES (If "YES," explain) ☐ NO

Explanation: The Unified Front End project builds from the base created with the Data Warehouse project to unify the DHS eligibility and application processes used to by Medicaid, Food Stamps, Family Investment Program (TANF), Child Welfare services, and other DHS services provided to Iowans in need. This project is required for DHS to meet 2003 e-commerce goals mandated by state statute in a cost-effective manner.

Does this project or expenditure meet a health, safety or security requirement?

☐ YES (If "YES," explain) ☒ NO

Explanation:

Is this project or expenditure necessary for compliance with an enterprise technology standard?

☐ YES (If "YES," explain) ☒ NO

Explanation:

Is this project or expenditure consistent with meeting the goals and objectives of the State's strategic plans?

☒ YES (If "YES," explain) ☐ NO

Explanation: DHS will be unable to meet State e-commerce objectives and goals without this project. Currently, DHS has several data source systems with varying technological backbones. These systems are not designed to interact with each other or share data between mainframe applications. These systems, in their current format, can not be deployed in an e-commerce environment. This project uses the work done by the Data Warehouse to create a common platform and data source for all current mainframe applications.

Is this a "research and development" project or expenditure? ☐ YES (If "YES," explain) ☒ NO

Explanation:

B. Project or Expenditure Summary

1. Provide a pre-project or pre-expenditure (before implementation) and a post-project or post-expenditure (after implementation) description of the impacted system or process. In particular, note if the project or expenditure makes use of information technology in reengineering traditional government processes.

Response: This project impacts all current DHS systems and sub-systems (over 80). Each system is primarily a stand-alone system designed to support a specific DHS program or service (e.g. Medicaid eligibility). Some of the major systems interact through batch processing using data extract files. This process requires very specific network process planning. Any delay in one system may prevent processing of client benefit information. During SFY01 and SFY02, the Data Warehouse created a centralized database for all DHS programs and services and has been systematically integrating each system into the Warehouse. This creates the linkage between the source system and the database. This project builds on this foundation. Following completion of this project, all eligibility and application processes will be processed through the common database. This will provide real-time updates and access to client records and all programs will share the common data. Caseworkers, through a single interface, will be able to support all services provided by DHS.

2. Summarize the extent to which the project or expenditure improves customer service to Iowa citizens or within State government. Included would be such items as improving the quality of life, reducing the government hassle factor, providing enhanced services, improving work processes, etc.

Response: This project will eliminate clients from applying separately for DHS services through separate Case and Service workers. Clients will be able to update their information once and have these updates propagated through all systems. This project creates the foundation for extension of DHS's benefit information and application processes to Citizens via digital government with DHS's Iowa Resource House and E-Commerce initiatives.

3. Identify the main project or expenditure stakeholders and summarize the extent to which each, especially citizens, is impacted. In particular, note if the project or expenditure helps reconnect Iowans to State government.

Response: Citizens - Simplified and easier access to DHS services, family centered case management enabling one case worker to support all the families services needs. Better communication between DHS and all Iowans, detailing all products and services, available to families in crisis.

DHS Executives, Managers, and Supervisors - Integrated information available to meet DHS goals from a global level to detailed case-level. Client-based tracking and trending to support better and easier access to DHS programs and services.

Not-for-Profit Human Services Providers - Integrates (via Iowa Resource House) all public and community based resources available to a family in crisis. Provides means for community-based organizations to assist community members with the DHS application process.

State Staff - Better information, readily available, to support clients across program boundaries. Streamlines multiple application processes (via unified front-end) into a central, DHS-wide application. Caseworkers have better access to all resources provided to a family or client from DHS. Greatly reduces costs in information management, reporting, and analysis.

Any caseworker will be able to support client access and updating of their information necessary to receive DHS services.

SECTION II: PROJECT ADMINISTRATION

A. Agency Information

1. Project Executive Sponsor Responsibilities: The sponsor must have the authority to ensure that adequate resources are available for the entire project, that there is commitment and support for the project, and that the organization will achieve successful project implementation.

Response: No response required.

2. Organization Skills:

- a. List the project management skills necessary for successful project implementation
- b. List the project management skills available within the agency
- c. List the source(s) of project management skills lacking within the agency
- d. Summarize relevant agency project management experience and results

Response:

- a. The primary project management skills necessary include a detailed understanding of relational database concepts, web programming and site management techniques, business process analysis and design, and detailed understanding of DHS services.
- b. These skills are limited but currently available within DHS. Some training of existing staff may be required.
- c. Currently, DHS is limited in staff resources concerning relational database design and management, web site management, and web programming skills specifically the use of embedded SQL in dynamic web pages.
- d. The Data Warehouse requires similar project management skills and a component of the Data Warehouse project is training existing staff in these skills. The deployment of the Data Warehouse is primarily via dynamic web pages interacting with databases. The initial deployment of the Data Warehouse test environment has been very favorable, especially in translating business requirements to web applications.

B. Project Information

1. History:

- a. Is this project the first part of a future, larger project? If so, please explain.
- b. Is this project a continuation of a previously begun project? If so, please explain project history, current status, and results.

Response:

- A. This is a key component of DHS's digital government plan.
- B. This project builds from the Data Warehouse project initially funded via pooled technology. The Data Warehouse builds the master relational database which will be used by this project. The activity of this project will then be extended into DHS's digital government plan via Iowa Resource House and E-Commerce initiatives.

2. Expectations: Describe the primary purpose or reason for the project.

Response: Create a single interface between Iowans and DHS services and programs.

3. Measures: Describe the criteria that will be used to determine if the project is successful.

Response: All DHS programs and services will use the unified front-end to support eligibility and application processes. Single source of client demographic data used by all programs and services.

4. Environment: List the project participants (i.e. single agency, multiple agencies, State government enterprise, citizens, associations, or businesses, etc.).

Response: This project involves all DHS programs and services, all DHS service providers, field staff, Information Technology Department, Not-for-Profit partners, and other State Agencies who partner with DHS to provide human services to Iowans. The primary constituency for this effort is the DHS client base.

5. Risk: Describe the project risks which may be internal or external to State government, i.e. implementing versus not implementing project, changing technology, potential cost overruns, changing citizen demand or need, etc.

Response: The risk to not implementing this project will be DHS's inability to meet e-commerce goals and objectives. Additionally, current systems will become significantly more expensive to maintain and will become too complex to effectively manage. This project uses technology layers (e.g. database, mainframe programming) to their maximized effectiveness. By segmenting DHS's digital government plan into several smaller, focuses projects (e.g. Data Warehouse, Unified Front-end, Iowa Resource House, E-Commerce) we mitigate cost and project risks to the maximine extent possible.

6. Security / Data Integrity / Data Accuracy / Information Privacy
- List the security requirements of the project
 - Describe how the security requirements will be integrated into the project and tested
 - Describe what measures will be taken to insure data integrity, data accuracy and information privacy.

Response:

A. Security - DHS uses tiered security to ensure only properly authorized users have access to warehouse data. Site security is used for the web-based applications. Users are given specific access when they are entered into the security system. Direct access to the database is restricted to only those users who are involved with the maintenance of the database. All users access the database via secured applications such as web or Business Objects. Enterprise security standards are applied. This tiered security approach separates security into more manageable segments and enables more focused and advanced security to be employed.

B. The above security is in place and has been tested.

C. Data issues are managed jointly by those supporting the source system, data warehouse personnel, and field users. All data imported is evaluated and cleansed as the data is loaded. All applications are tested by end-users to ensure information presented through the application accurately reflects primary source systems. Access to information is controlled by a security application within the web-based applications and within the database. Access to information via Business Objects is controlled by who is provided the software tool and Business Objects provides security methods to ensure only authorized data is accessed. The use of web-site security management techniques ensures access to front-end applications does not allow the person to access the database, these are two separate security features.

7. Project Schedule
Describe general time lines, resources, tasks, checkpoints, deliverables, responsible parties, etc.

Response: The project is divided into two primary components; Anaysis and Integration. The Analysis phase includes identifying all DHS programs and their respective eligibility and application information requirements. Integration phase is the development of the initial web-application to support Income Maintenance services. Following the development of this application, subsequent programs will be migrated into the application. Based on funding, resource availability, and projected work within the Data Warehouse project, this project is extected to be completed within one year. The analysis phase is planned for 4 months with the integration phase taking 8 months. Once the analysis phase is completed, the project schedule can be ramped forward or stretched depending on overall State goals and DHS objectives.

SECTION III: TECHNOLOGY (In written detail, describe the following)**A. Current Technology Environment**1. Software (Client Side / Server Side / Midrange / Mainframe):

- a. Application software
- b. Operating system software
- c. Major interfaces to other systems, both internal and external

Response:

- a. IDMS and VSAM.
- b. Varies by program application.
- c. Limited interface with existing mainframe programs. All interfaces must be developed internally by State Staff and contractors.

2. Hardware (Client Side / Server Side / Mid-range / Mainframe):

- a. Platform, operating system
- b. Storage and physical environment
- c. Connectivity and bandwidth
- d. Logical and physical connectivity
- e. Major interfaces to other systems, both internal and external

Response: ITD provides all hardware configuration within established enterprise IT standards.

B. Proposed Technology Environment1. Software (Client Side / Server side / Mid-range / Mainframe)

- a. Application software
- b. Operating system software
- c. Major interfaces to other systems, both internal and external
- d. General parameters if specific parameters are unknown or to be determined

Response:

- A. Application Software: User-define web applications, Business Objects reporter, Business Objects Infoview, Queryman.
- B. Teradata Operating System version 2 release 4 on a Unix server for initial database development, final platform will be determined based on analysis and State Enterprise goals.
- C. This system will integrate with all current DHS systems. The primary interfaces will be with IABC, Title 19, and Child Welfare information systems.
- D. Generally, this will be a web-based solution using Microsoft's Internet Information Server and either IBM's DB2 or Microsoft's SQL Server 2000.

2. Hardware (Client Side / Server Side / Mid-range / Mainframe)

- a. Platform, operating system
- b. Storage and physical environment
- c. Connectivity and Bandwidth
- d. Logical and physical connectivity
- e. Major interfaces to other systems, both internal and external
- f. General parameters if specific parameters are unknown or to be determined

Response:

- a. The project will be developed on existing Teradata platform and then migrated to either DHS's server farm, DHS's midrange, or ITD's mainframe. Final platform selection, hardware, software, and connectivity requirements will be determined as a joint analysis between ITD and DHS by integrating the requirements and options determined by Data Warehouse, Unified Front-End, Iowa Resource House, E-commerce initiatives.
- b. Storage requirements will move from mainframe tape to less expensive disk-arrays.
- c. Connectivity will be through DHS's secure web servers to database. Bandwidth requirements are anticipate to remain unchanged but more channeled through the Intranet.
- d. Physical connectivity will be through Internet Explorer on DHS's intranet.
- e. This project interfaces will all DHS major systems and sub-systems currently on the mainframe.
- f. Interface connectivity is designed and developed through Data Warehouse project.

C. Data Elements

If the project creates a new database, provide a description of the data elements.

Response: This project builds off the database created by the Data Warehouse.

SECTION IV: Financial Analysis

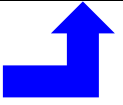
A. Budget: Enter figures and calculate (see formula below) Total Annual Prorated Cost (State Share).

$$\left[\left(\frac{\text{Budget Amount}}{\text{Useful Life}} \right) \times \% \text{ State Share} \right] + (\text{Annual Ongoing Cost} \times \% \text{ State Share}) = \text{Annual Prorated Cost}$$

Budget Line Items	Budget Amount (1 st Year Cost)	Useful Life (Years)	% State Share	Annual Ongoing Cost (After 1 st Year)	% State Share	Annual Prorated Cost
Agency Staff	\$120,000	1	45%	\$210,000	60%	\$180,000
Software	\$250,000	4	45%	\$80,000	60%	\$76,125
Hardware	\$150,000	3	45%	\$100,000	60%	\$82,500
Training	\$100,000	4	45%	\$30,000	60%	\$29,250
Facilities	\$25,000	1	100%	\$15,000	100%	\$40,000
Professional Services	\$667,500	4	45%	\$0	0%	\$75093
ITD Services	\$25,000	4	45%	\$100,000	60%	\$62,813

Supplies, Maint, etc.	\$25,000	1	45%	\$10,000	100%	\$21,250
Other (Specify)	\$	1	%	\$	%	\$
Totals	\$1362500	-----	-----	\$545000	-----	\$567031

Transfer this amount to the ROI Financial Worksheet, item “D” on page 13.



B. Funding: Enter data or provide response as requested

1. This is (pick one): ☒ A Pooled Technology Fund or Reengineering Fund Request
☐ An Agency IT Expenditure or Budget Request (General Fund, Road Funds, etc)
☐ Other – Specify:

2. On a fiscal year basis, enter the estimated cost by funding source?

	FY03		FY04		FY05	
	Cost (\$)	% Total Cost	Cost (\$)	% Total Cost	Cost (\$)	% Total Cost
State General Fund	\$	%	\$	%	\$	%
Pooled Tech. Fund	\$626875	46%	\$	%	\$	%
Federal Funds	\$735625	54%	\$	%	\$	%
Local Gov. Funds	\$	%	\$	%	\$	%
Grant or Private Funds	\$	%	\$	%	\$	%
Other Funds (Specify)	\$	%	\$	%	\$	%
Total Project Cost	\$1362500	100%	\$	100%	\$	100%

If applicable, summarize prior fiscal year funding experience for the project / expenditure.

Response: N/A

1. On a fiscal year basis, how much of the total (\$ amount and %) project / expenditure cost would be absorbed by your agency from normal operating budgets (all funding sources)?

Response: \$735,625 (54%) from Federal matching funds.

2. Identify, list, and quantify all new annual ongoing (maintenance, staffing, etc.) related costs (State \$s) that will be incurred after implementation or expenditure.

Response: This is a technology transfer program and existing staff will be trained to support the new system within DHS's client server bureau.

C. ROI Financial Worksheet: Respond to the following and transfer data to the ROI Financial Worksheet (see IVC11) as necessary:

1. Annual Pre-Project Cost – Quantify all actual state government direct and indirect costs (personnel, support, equipment, etc.) associated with the activity, system or process prior to project implementation. This section should be completed only if state government operations costs are expected to be reduced as a result of project implementation.

Response: Over 590,000 unique applications are processed each year involving over 1 manhour per application of State personnel and well over 1 manhour of applicant time. Applications support costs (paper, etc) are over \$4 per application.

590,000 Unique Applications x \$4.00 per application = \$2,360,000.

590,000 Unique Applications x 1 Hour processing x \$20 per hour = \$11,800,000.

2. Annual Post-Project Cost – Quantify all estimated State government direct and indirect costs associated with activity, system or process after project implementation. This section should be completed only if State government operations costs are expected to be reduced as a result of project implementation.

Response: There will be on 320,000 applications @ \$4 per application, eliminating all costs associated with the duplicated applications. 4 FTE's are added.

320,000 Unique Applications x \$4.00 per = \$1,280,000.

320,000 Unique Applications x 1 Hour processing x \$20 per hour = \$6,400,000.

4 FTE's @ \$60,000 (Salary plus Benefits) = \$240,000.

3. State Government Benefit -- Subtract the total "Annual Post-Project Cost" from the total "Annual Pre-Project Cost." This section should be completed only if State government operations costs are expected to be reduced as a result of project implementation.

Response: \$14,160,000 (Pre-project Total) - \$7,920,000 (Post-project Total) = \$6,240,000 Annual Savings

4. Citizen Benefit – Quantify the estimated annual value of the project to Iowa citizens. This includes the "hard cost" value of avoiding expenses ("hidden taxes") related to conducting business with State government. These expenses may be of a personal or business nature. They could be related to transportation, the time expended on or waiting for the manual processing of governmental paperwork such as licenses or applications, taking time off work, mailing, or other similar expenses. As a "rule of thumb," use a value of \$10 per hour for citizen time savings and \$.325 per mile for travel cost savings.

Response: \$2,700,000. This savings represents less time required to apply for benefits. It does not include additional travel time involved with applying for multiple services through multiple DHS departments and caseworkers. This represents a reduction of 270,000 separate applications (now combined) and a reduction of 1 hours per application in client time to complete the application process. (270,000 Apps x \$10.00 = \$2,700,000).

5. Opportunity Value/Risk or Loss Avoidance Benefit – Quantify the estimated annual non-operations benefit to State government. This could include such items as qualifying for additional matching funds, avoiding the loss of matching funds, avoiding program penalties/sanctions or interest charges, avoiding risks to health/security/safety, avoiding the consequences of not complying with State or federal laws, providing enhanced services, avoiding the consequences of not complying with enterprise technology standards, etc.

Response: DHS systems are in need of upgrade and overhaul to meet E-commerce and HIPAA requirements. If each system is upgraded as a stand-alone system, the total estimated costs exceed \$80 million. However, by integrating new technology to existing technology, this cost avoided. Additional risks include loss of Federal matching funds and DHS's inability to meet digital government goals.

6. Total Annual Project Benefit -- Add the values of all annual benefit categories.

Response: \$6,240,000 plus \$2,700,000 = \$8,940,000 (not including the opportunity risks).

7. Total Annual Project Cost – It is necessary to estimate and assign a useful life figure to each cost identified in the project budget. Useful life is the amount of time that project related equipment, products, or services are utilized before they are updated or replaced. In general, the useful life of hardware is three (3) years and the useful life of software is four (4) years. Depending upon the nature of the expense, the useful life for other project costs will vary between one (1) and four (4) years. On an exception basis, the useful life of individual project elements or the project as a whole may exceed four (4) years. Additionally, the ROI calculation must include all new annual ongoing costs that are project related. Completing Section IV-A, Project Budget of the evaluation document will provide all the necessary information for this item.

Response: \$567,031

8. Benefit / Cost Ratio – Divide the “Total Annual Project Benefit” by the “Total Annual Project Cost.” If the resulting figure is greater than one (1.00), then the annual project benefits exceed the annual project cost. If the resulting figure is less than one (1.00), then the annual project benefits are less than the annual project cost.

Response: 15.76 This figure does NOT include the avoidance cost.

9. ROI -- Subtract the “Total Annual Project Cost” from the “Total Annual Project Benefit” and divide by the amount of the requested State IT project funds.

Response: 1,336 % This does NOT include the avoidance cost.

10. Benefits Not Readily Quantifiable -- List the project benefits which are not readily quantifiable (i.e. IT innovation, unique system application, utilization of new technology, hidden taxes, improving the quality of life, reducing the government hassle factor, meeting a strategic goal, etc.). Rate the importance of these benefits on a “1 – 10” basis, with “10” being of highest importance. Check the “Benefits Not Readily Quantifiable” box in the applicable row.

Response: DHS will be UNABLE to meet E-commerce requirements without this project.

11. ROI Financial Worksheet

Annual Pre-Project Cost - How You Perform The Function(s) Now

FTE Cost (salary plus benefits):	\$11800000
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	\$2360000
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	\$
A. Total Annual Pre-Project Cost:	\$14160000

Annual Post-Project Cost – How You Propose to Perform the Function(s)

FTE Cost:	\$1520000
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	\$6400000
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	\$
B. Total Annual Post-Project Cost:	\$7920000
State Government Benefit (= A-B):	\$6240000

Annual Benefit Summary

State Government Benefit:	\$6240000
Citizen Benefit:	\$2700000
Opportunity Value or Risk/Loss Avoidance Benefit:	\$
C. Total Annual Project Benefit:	\$8940000
D. Annual Prorated Cost (SECTION IV-A):	\$567031
Benefit / Cost Ratio: (C / D) =	15.8
Return On Investment (ROI): (C – D / Requested Project Funds) x 100 =	1,336%

☒ **Benefits Not Readily Quantifiable**

Section V: ITC Project Evaluation Criteria

Criteria and Location in Project Evaluation Document		Points
1.	Is the project a statutory requirement; legal requirement; federal or state mandate; health, safety or security requirement or issue; and/or required for compliance with the enterprise technology standards? Location: Section I-A	15
2.	Will the project improve customer service? Location: Section I-B.2	15
3.	Does the project have a direct impact on citizens? To what extent does the project help reconnect state government with lowans? Location: Section I-B.3	10
4.	Does the project provide a sufficient tangible and/or intangible return on investment? Will it generate savings or income? Location: Section IV-C	10
5.	Does the project make use of information technology and its practical application in reengineering traditional government processes consistent with the goals and objectives of the state's strategic plans? Location: Section I-B.1	10
6.	Risk: What are the risks associated with the project? Such risks may include those internal and external to state government, the risk of doing a project, the risk of not doing a project, and the risks associated with changing technologies, potential cost overruns, and changing citizen demands and needs. Location: Section II-B.5	10
7.	Is this funding required to continue a project that was begun prior to the year funding is being requested for and does it have proven past performance? Is the funding part of a multi-year strategy? Location: Section II-B1, IVB2	10
8.	Will the project be for only one agency, multiple agencies, or the state government enterprise? Location: Section I-B3, IIB4	10
9.	Has the applicant maximized their own and other resources in the project? Is alternative funding unavailable for this project? (If no other funding available, project will not be completed without Pooled Technology funding) Location: Section IV-B.2, IV-B.3	5
10.	What is the credibility of the requester based on past performance on other projects? Location: Section II-A.2.d	5
Total		100